

REMARKS**I. OVERVIEW**

Claims 1 and 3-38 are pending in the present application. Claims 3, 22, 31, and 35 have been amended. The present response is an earnest effort to place all claims in proper form for immediate allowance. Reconsideration and passage to issuance is therefore respectfully requested.

II. CLAIM REJECTIONS - 35 U.S.C. § 112

Claims 31-36 were rejected under 35 U.S.C. §112, 1st ¶. Claims 31 and 35 were amended to remedy the 112 rejections. In particular, in claim 31 was amended to "a frame of less than approximately six feet" with --a frame of approximately a few feet--. Support for this amendment is found in the specification at least at page 12, lines 15-18, and therefore there is no new matter. Also, in claim 31, the limitation each wheel "of at least thirty six inches diameter" was removed, the limitation of the frame being "less than 8 feet wide" was also removed, as was the limitation of the wheels of the wheel rake being "at least two feet" off the ground.

In claim 35, the limitation of "each wheel having at least a thirty six inch diameter" has been removed, therefore, it is respectfully submitted that this rejection has also been appropriately remedied. It is respectfully submitted that all of these rejections have been appropriately remedied and thus, these rejections should now all be withdrawn.

Claim 3 was rejected under 35 U.S.C. §112, 2nd ¶ as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Claim 3 has amended to change dependency from claim 2 to claim 1. Therefore, it is respectfully submitted that this rejection must also be withdrawn.

III. CLAIM REJECTIONS - 35 U.S.C. § 103

A. Claims 1, 4-5, 8-20, 22-25, and 28-38.

Claims 1, 4-5, 8-20, 22-25, and 28-38 have been rejected under 35 U.S.C. §103(a) as being obvious based on Lewis (5,404,702) in view of Allen (4,932,197) and Buck (4,753,063). Applicant respectfully traverses these rejections. Applicant requests reconsideration of the claims and submits that the Examiner has not met the burden of persuasion required for a *prima facie* case of obviousness.

Lewis does not teach, suggest, or motivate using wheel rakes on the frame. The Examiner cites Lewis, col. 4, lines 4-11, as teaching that wheel rakes can be attached to the "base" or extension frame and that Lewis generically refers to hay rakes as including all types of rakes. Applicant respectfully submits that this interpretation is erroneous and is not a proper construction of Lewis, especially when Lewis is viewed as a whole. *See W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (stating that a prior art reference must be viewed as a whole including those portions that would lead away from the claimed invention). There are at least five compelling reasons why Lewis neither suggests nor motivates using wheel rakes on the extension frame.

1. Lewis only teaches power rakes and never suggests wheel rakes.

First, Lewis never mentions or even suggests using wheel rakes. In fact, Lewis only refers to the rakes as power rakes and does so at least 29 times throughout the Abstract and Specification. (See Abstract, l. 6-7, 9, and 14; Col. 1, l. 31, 32, 40, 53-4, 55, 57, 61, 64, and 66; Col. 2, l. 58, 61, and 66; Col. 3, l. 18 and 30; Col. 5, l. 23, 46-8, and 61; Col. 6, l. 2 and 47; Col. 7, l. 15 and 40; Col. 8, l. 43, 48, 52, and 54; and Col. 9, l. 6-7.) Furthermore, when Lewis refers

generically to the rakes as "the rakes" or "the hay rakes," Lewis means power rakes; any other interpretation is taking away Lewis' intention and is taking his meaning out of context. For example, in the "Summary of the Invention," Lewis states, "The instant invention is an extension tongue or frame that supports . . . power rakes." Col. 2, l. 56-8. In the next sentence, Lewis states, "The extension frame has sufficient strength to . . . support the attached hay rakes . . ." Col. 2, l. 58-60. Based on the canon of construction *noscitur a sociis* (a word is known by its associates), the reference to "hay rakes" can only plausibly mean power rakes, especially when Lewis again specifies "power rakes" in the next two sentences (Col. 2, l. 61-7). When Lewis states "the rakes" in the fifth sentence of the paragraph (Col. 2, l. 67), the only logical interpretation is that the rakes are power rakes. Thus, when Lewis refers to "windrow rakes" in Col. 4, l. 7-8, one of ordinary skill in baling would interpret this as Lewis referring to power rakes and suggesting that farmers will want to use their own power rakes on the extension frame, not any type of rake. *See also* Herbold declaration, ¶ 7. Thus, the Examiner improperly interprets Lewis. When taken in its proper context, Lewis does not disclose all that the Examiner purports.

2. Lewis defines the pertinent prior art as consisting only of power rakes.

Second, Lewis contemplates using only power rakes because he defines the pertinent prior art as consisting only of power rakes. See Lewis, Col. 1, l. 29-33: "The prior art for combination raker/balers breaks down into two distinct approaches: one, attachment of the *power rake* to the baler and, two, attachment of the *power rake* to the prime mover or tractor." (emphasis added). Thus, Lewis' own definition of the pertinent prior art defines both the relevant scope of prior art (a *Graham v. Deere* obvious factor) and the relevant context of Lewis'

invention and apparatus. Lewis, when taken as a whole, actually teaches away from using wheel rakes as in Applicant's invention.

3. The Examiner's assertion is inconsistent with Lewis' teaching.

Third, the Examiner's assertion that Col. 4, l. 4-10 teaches using any generic type of rake is inconsistent with the rest of Lewis' teaching of his invention. If Lewis intended that ground-driven wheel rakes could be attached to the "base" frame, then Lewis added several unnecessary parts to the base frame that would likely make the frame uneconomical to purchase. For example, the base frame includes a diverter valve and two hydraulic motors for the purpose of operating the power rakes. Col. 6, l. 45-54. As Lewis states, "The extension frame includes additional hydraulics that are usually not associated with a baler." Col. 6, l. 44-5. Purchasing a frame that has hydraulic components attached to it for driving power rakes adds unnecessary costs if ground-driven wheel rakes are intended to be used instead. Thus, Lewis would not suggest to one of ordinary skill in baling to use wheel rakes rather than power rakes, and in fact, teaches away from using wheel rakes. Lewis teaches and only mentions that power rakes can be used on the frame.

4. Wheel rakes combined with Lewis does not suggest an operative combination.

Fourth, in Lewis there is no indication of how wheel rakes could be attached to the base frame or in a configuration that could render an operable combination. Wheel rakes and power rakes are fundamentally different in their mode of operation and design; it is unlikely that the same frame can work for both types of rakes. The Examiner's reference to U.S. Patent No. 4,932,197 to Allen supports this assertion. The wheel rake frame needs rigid support beams (Allen, element 180) that run the entire length of the rake so that the individual wheels can be attached with independent suspension for each wheel. The wheel rakes must be mounted to the

frame so they overlap and need to be significantly offset from each other in order to smoothly funnel the plant material into a windrow. See Paulsen, Fig. 1; Allen, Fig. 5. In contrast, Allen's main frame (430) for the power rakes requires rotatably mounted beams (540) attached to the ends of telescoping slidable beams (440 and 441, generally). By visually comparing Allen's wheel rake frame (see, e.g., Allen, Fig. 5) to Allen's power rake frame (see, e.g., Allen, Fig. 14), the difference in the frame designs is stark. As Allen clearly shows and teaches in the invention, one of ordinary skill in baling would not be motivated to attach wheel rakes to a power rake frame. Thus, the Examiner's interpretation of and reliance upon Allen is misplaced.

The attached declaration further evidences that wheel rakes cannot be attached to a power rake frame, unless there is substantial redesign. In order to attach wheel rakes to a power rake frame, substantial modification to the power rake frame would be required in order to allow the wheel rakes to turn freely without interfering with the power rake frame. Herbold declaration, ¶ 7.

Lewis does not teach or enable how the base frame would be modified to attach wheel rakes or how the required overlap and offset of the wheel rakes would be achieved on the base frame. Therefore, Lewis does not enable one of ordinary skill in baling to use wheel rakes on the Lewis frame without requiring substantial redesign and experimentation. Thus, Lewis cannot render Applicant's invention obvious. See *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 46 C.C.P.A. 976 (C.C.P.A., 1959) (stating that a combination of references requiring substantial reconstruction and redesign in order to reach Applicant's invention is evidence of non-obviousness).

5. Applicant had different motivation.

Fifth, Lewis did not encounter the same problem that Applicant's invention solved. Lewis sought productivity gain in hay baling, while Applicant primarily sought productivity gain in corn stalk baling. In 2002, only 13 acres (0.02 square miles) of corn were grown in Henderson County, Texas, where Lewis' address of Eustace is located. 2002 United States Census of Agriculture.¹ In contrast, 150,820 acres (235 square miles) of corn were grown in 2002 in Shelby County, Iowa,² where Applicant's hometown of Elk Horn is located. Because Lewis lives in a region where corn is essentially non-existent, and based on the fact that, throughout the specification, Lewis only refers to raking or baling hay, it is unlikely that Lewis contemplated, and certainly does teach or suggest raking corn stalks or making corn stalk baling more economical. Thus, the Applicant's claimed invention solves a different problem than does Lewis. As the Federal Circuit has made clear, "The problem solved by the invention is always relevant." *In re Wright*, 838 F.2d 1216, 6 U.S.P.Q.2d 1959, 1961 (Fed. Cir. 1988). The Examiner has not properly considered the different problems addressed by Lewis and the present invention.

¹ http://www.nass.usda.gov/census/census02/volume1/tx/st48_2_024_024.pdf

² http://www.nass.usda.gov/census/census02/volume1/ia/st19_2_024_024.pdf

Any assertion that Lewis suggests wheel rakes is merely based on impermissible hindsight. In view of the five points enumerated above, when one of ordinary skill in baling reads Lewis, there is no teaching that would suggest using wheel rakes in place of power rakes. Any assertion that Lewis teaches or suggests using rakes other than power rakes is an impermissible construction based on hindsight in view of Applicant's invention. The Examiner is ignoring the reference as a whole and attempting to find what is not present.

Allen does not suggest the combination. Allen provides no motivation or suggestion to one of ordinary skill in baling to combine the power rake-baler combination of Lewis with a pull-behind wheel rake implement to produce Applicant's invention. Allen is simply another example of a pull-behind wheel rake. Pull-behind wheel rakes such as Allen have been in existence since at least 1952 and are long known in the art of baling. See Lipe et al. (2,603,053) and Crowe et al. (2,602,280). They require a separate pass through the field which adds extra machinery, fuel, and labor costs.

Pull-behind wheel rakes add nothing to the obviousness argument because they do not suggest or motivate or enable the combination with a baler. In fact, they teach away from combining the wheel rake with the baler because they created a paradigm in the baling industry that raking and baling should be separate field operations. In addition, neither Allen nor the other pull-behind wheel rake references suggest adding the pull-behind wheel rake onto the tongue of a baler. Furthermore, there is no suggestion in these references of how to make the combination without substantially lengthening the rake-baler implement, a result that the Applicant sought to avoid in order to preserve maneuverability. Thus, references such as Allen support Applicant's assertion of non-obviousness.

Applicant's invention fills a long-felt need. There is a constant need to make baling, such as corn stalk baling, more economical. See Applicant's Appeal Brief, p.5. The Applicant's situation is analogous to that of *Ex parte Franklin*, 41 USPQ 43 (Pat. Off. Bd. App. 1938), where the Examiner rejected the claimed invention as being obvious in view of two prior art references. The Court held in favor of Applicant stating, "If it were obvious to install [the improved air filter on the engine] to increase the mileage before overhaul from 30,000 to 60,000 miles, the device would have been used years ago." Applicant's wheel rake and baler apparatus improves economic productivity in baling by decreasing the number of required passes through the field. Thus, if the Applicant's claimed invention were obvious to one of ordinary skill in baling, then the pull-behind wheel rake implements dating from Allen (1990) to Crowe et al. (1952) would have been combined with balers long ago in order to increase productivity by saving time, fuel, labor, and machinery wear. See also Herbold declaration, ¶ 13, for positive benefits of Applicant's claimed invention.

Secondary considerations, such as the fact that Applicant's claimed invention improves economic productivity in baling, are highly relevant to the question of obviousness.³ The field of baling crop material is a crowded art. The fact that pull-behind wheel rakes and balers have existed for decades, yet not a single person has previously combined the two to increase productivity, is strong evidence of non-obviousness.

³ *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 20 U.S.P.Q.2d 1746, 1752 (Fed. Cir. 1991) ("Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light. Such objective indicia as . . . filling an existing need, illuminate the technological and commercial environment of the inventor, and aid in understanding the state of the art at the time the invention was made."); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538-40, 218 U.S.P.Q. 871, 879 (Fed. Cir. 1983) ("[E]vidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decision maker remains in doubt after reviewing the art.").

No suggestion to combine Allen with Lewis. One of ordinary skill in baling would not be motivated to combine the wheel rake of Allen with the frame in Lewis. As noted in the discussion of Lewis (above), wheel rakes and power rakes have significantly different designs and cannot be easily interchanged on the same frame. *See also* Herbold declaration, ¶ 7. Allen does not suggest or enable one of ordinary skill in baling how the wheel rake would be attached to the extended tongue of the baler. Allen also does not enable or suggest how the frame supports and cross members would be mounted on the baler tongue while allowing a path for the PTO to reach the baler. Allen also does not show the wheel rakes folding vertically as in Applicant's invention. Allen teaches folding the wheel rakes horizontally, as in Lewis, which significantly increases the length of the rake-baler combination, exactly what Applicant sought to avoid. Applicant sought to add the wheel rakes to the baler tongue while minimizing the length of the tractor-rake-baler combination. By minimally increasing the length of the baler frame, Applicant's invention still allows the tractor-rake-baler combination to make tight turns, which are often required during baling. The Examiner's combination of Allen with Lewis does not suggest to one of ordinary skill in baling how wheel rakes could be added to the baler frame without significantly lengthening it. *See also* Herbold declaration, ¶ 8.

Buck does not suggest Applicant's invention. Buck does not suggest to one of ordinary skill in baling to add a wheel rake to the tongue of a baler. *See* Herbold declaration, ¶ 8. Buck only teaches mounting wheel rakes onto the front of a tractor and does not teach or even suggest mounting wheel rakes on a baler.

Buck does not motivate attaching wheel rakes to a baler. In the "Background Art" section, Buck states, "The use of . . . rear-positioned rake implements require one or more . . . passes over a field to accomplish . . . the raking operation and still another pass for the baling

operation. . . . In order to overcome some of the drawbacks associated with rear-positioned rake implements . . ." Col. 1, l. 19-23 and 26-27. Buck's statements indicate that he did not consider the possibility of combining a pull-behind wheel rake with a pull-behind baler to achieve a rake-baler combination. Instead, Buck's invention only suggests adding the rake to the front of the tractor in order to achieve a rake-tractor-baler combination that can achieve raking and baling in one pass. Therefore, Buck cannot motivate or suggest placing wheel rakes on a baler.

Applicant's invention solves problems created by Buck. Furthermore, Applicant's invention solves several problems created by Buck. Because of the low ground clearance of a typical tractor used in baling, corn stalks or hay can bunch up underneath the tractor and will not pass smoothly underneath it. Herbold declaration, ¶ 9. By raking the plant material after the tractor passes, as in Applicant's invention, bunching caused by the tractor is avoided. Second, corn stalks are baled in the autumn after the corn harvest is over. At this time of year, time is of the essence because of the impending winter in the Midwest. With Applicant's invention, the tractor can be immediately hitched or unhitched from the wheel rake-baler apparatus and used for a different implement or other use. In contrast, Buck requires removal of the rake implement (10) from the front of the tractor before the tractor can be utilized for other tasks such as gathering and stacking bales using a front end bale spear. Removal of the rake implement (10) is time-consuming and burdensome considering the heavy weight and size of the rake along with the number of fasteners that must be loosened to remove it. See Lewis, Col. 2, l. 13-19. Because Buck is from East Central Texas where the winters are mild, it is likely that he did not consider this problem.

Mounting the rakes on the front of the tractor, as in Buck, is dangerous. Herbold declaration, ¶ 10. When the rakes are folded, they create a significant obstruction to the forward

view of the tractor operator. See Buck, Fig. 5. Applicant's invention does not inhibit the forward view of the operator. In addition, standard rearview mirrors in the cab of the tractor allow the operator to monitor both the rake and the baler with one glance. In Buck, the operator must constantly watch the forward and rear end of the tractor for proper operation of the rake and the baler, respectively. Furthermore with Buck, the operator cannot see what is happening directly in front of the tractor because the tractor hood blocks the view. See Buck, Figs. 1 and 5. Therefore, if bunching or other problems are occurring directly in front of the tractor, the operator cannot see what is happening from the cab.

In addition, Buck does not allow sharp turning, a goal of Applicant's invention. When making a 360-degree turn with an implement, the front end of the tractor has to travel in a wide arc in order to get the trailing implement back on a straight path to head in the opposite direction. (The same concept applies with truck-trailer and other combinations where two objects are hitched together and one is pulled by the other.) When the wheel rakes are mounted on the front end of the tractor (as in Buck, Fig. 4a or 4b), the required turning radius greatly increases because of the large distance that the wheel rakes protrude out. Applicant concedes that the operator in Buck could use the automatic actuator system to fully raise the wheel rakes before making the turn in order to decrease the required turning radius. However, this adds another task that the operator must perform and is eliminated by Applicant's invention.

Furthermore, Buck creates additional maneuverability problems because the rakes will not follow the contour of the ground since they protrude from the front of the tractor. Herbold declaration, ¶ 12. In contrast, Applicant's invention places the wheel rakes between two ground contacting sources (the baler wheels and the tractor wheels) which will allow the rakes to more easily follow the contour of the ground.

Caraway, Lutz, and Fell et al. add no support to a *prima facie* case of obviousness.

Caraway and Lutz, like Buck, are rakes that only operate in front of the tractor. Furthermore, Caraway and Lutz require a front end loader attachment in order to mount the rake (Caraway, Col. 1, l. 36-37; Lutz, 42 in Fig. 1) which only adds more complexity and cost to the implement. Both Caraway and Lutz add further support to the Applicant's argument for non-obviousness. Caraway and Lutz further demonstrate the general paradigm in the baling industry that the only way to incorporate a wheel rake and a baler into a single implement was by mounting the wheel rake on the front of the tractor. These references, like Buck, do not suggest mounting wheel rakes onto the tongue of a baler as claimed in the Applicant's invention. Additionally, the wheel rakes in Caraway do not contact the ground (col. 3, l. 66 - col. 4, l. 3) and must be folded manually (col. 4, l. 16-7); both features are significant differences from Applicant's invention.

Fell et al. uses powered tine bar rakes, and therefore Fell et al. merely discloses another example of a bar rake. Physically, tine bar rakes are completely different from wheel rakes and operate in a completely different manner. Tine bar rakes are linear rods (70, 72, and 74) with tines (84) that rotate in an elliptical path and do not touch the ground. See Fell et al., fig. 3, col. 4, l. 44-47 and compare with Paulsen, Fig. 2. (See also the discussion under Lewis.) Fell et al. does not suggest, enable, or motivate one of ordinary skill in baling to substitute wheel rakes for the tine bar rakes shown. In fact, Fell et al. eschews crowder wheels which are ground driven (col. 1, l. 21-50) in favor of the powered tine bar rakes. Therefore, Fell et al. teaches away from using ground-driven wheel rakes and certainly does not motivate combining Buck, Caraway, or Lutz. For all the foregoing reasons, it is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness and these rejections must be withdrawn.

B. Claims 6-7.

Dependent claims 6 and 7 should be allowable as stemming from an allowable independent claim, i.e., claim 1.

C. Claim 21.

Claim 21 should be allowable as stemming from an allowable independent claim, i.e., claim 1.

D. Claims 26-27.

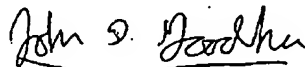
Claims 26 and 27 should be allowable as stemming from an allowable independent claim, i.e., claim 25.

IV. CONCLUSION

In view of the foregoing, Applicant respectfully requests that a notice of allowance be issued for claims 1 and 3-38.

Please charge Deposit Account No. 26-0084 the amount of \$475.00 for the three-month extension of time. No other fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Respectfully submitted,



JOHN D. GOODHUE, Reg. No. 47,603
McKee, Voorhees & Sease, P.L.C.
801 Grand Avenue, Suite 3200
Des Moines, Iowa 50309-2721
Phone No. (515) 288-3667
Fax No. (515) 288-1338
CUSTOMER NO: 22885
Attorneys of Record